

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): A process for producing high-purity silicon by thermal decomposition of a silane-containing mixture in the gas phase and deposition of massive silicon, wherein the gas mixture used comprises monosilane, monochlorosilane and, if desired, further silanes.

Claim 2 (Original): The process as claimed in claim 1, wherein the gas mixture used comprises from 10 to 60% by weight of monosilane, from 10 to 60% by weight of monochlorosilane and from 0 to 15% by weight of further silanes, where the silanes present in the gas mixture add up to 100% by weight.

Claim 3 (Currently Amended): The process as claimed in claim 1 ~~or 2~~, wherein the gas mixture used comprises monosilane and monochlorosilane together with at least one further silane from the group consisting of dichlorosilane and trichlorosilane.

Claim 4 (Currently Amended): The process as claimed in ~~any of claims 1 to 3~~ claim 1, wherein a gas mixture as is obtained in the partial condensation after the dismutation of trichlorosilane is used.

Claim 5 (Currently Amended): The process as claimed in ~~any of claims 1 to 4~~ claim 1, wherein the thermal decomposition and deposition is carried out at a temperature in the range from 600 to 1250°C.

Claim 6 (Currently Amended): The process as claimed in ~~any of claims 1 to 5~~ claim 1, wherein the thermal decomposition and deposition is carried out at a pressure of from 1 mbar abs. to 100 bar abs.

Claim 7 (Currently Amended): The process as claimed in ~~any of claims 1 to 6~~ claim 1, wherein the process is carried out continuously.

Claim 8 (Currently Amended): The process as claimed in ~~any of claims 1 to 7~~ claim 1, wherein the silane-containing feed mixture is stored as liquid or gas in an intermediate storage from which ~~the~~ a decomposition/deposition apparatus is supplied.

Claim 9 (Currently Amended): The process as claimed in ~~any of claims 1 to 8~~ claim 1, wherein at least one further gas from the group consisting of hydrogen, nitrogen and noble gas is added to the silane-containing feed mixture before the gas mixture is fed to ~~the~~ a decomposition/deposition apparatus.

Claim 10 (Currently Amended): The process as claimed in ~~any of claims 1 to 9~~ claim 1, wherein at least part of ~~the~~ an offgas from ~~the~~ a decomposition/deposition apparatus is added to the silane-containing feed mixture.

Claim 11 (Currently Amended): The process as claimed in ~~any of claims 1 to 9~~ claim 1, wherein a tube reactor or a fluidized-bed reactor is used as decomposition/deposition apparatus and the thermal decomposition and deposition is carried out on solid pieces of silicon.

Claim 12 (Original): ~~The use of a monosilane and monochlorosilane containing fraction from a dismutation process for preparing monosilane as A~~ feed mixture in CVD processes for producing high-purity silicon comprising a monosilane- and monochlorosilane-containing fraction from a dismutation process for preparing monosilane.